

SOME PLEIDS AND WATER-STRIDERS FROM THE DOMINICAN REPUBLIC (HEMIPTERA).

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Very little is known relative to the aquatic and semiaquatic Hemiptera of many islands of the West Indies. During the latter part of last December (1955) the junior author spent ten days collecting Hemiptera in the Dominican Republic. The present paper is confined entirely to the pleids and water-striders netted by him on this trip. The types of the new species are in the Drake Collection, paratypes and other specimens in collections of both authors. In the measurements of structures in the descriptions, 80 units is the equivalent of one millimeter.

Family Pleidae Fieber 1851

Paraplea puella (Barber): Several specimens, netted in a permanent pond, Bajos de Haina, Prov. de Trujillo, Dec. 29. This species is widely distributed in the West Indies, Panama, Mexico and Gulf States (Fla., Miss., La., Tex.). *Neoplea punctifer* (Barber): One specimen, Bajos de Haina, Dec. 29, taken in the same pond as *puella*. Known heretofore only from the types (Arecibo, Puerto Rico).

The subgenera *Neoplea* Esaki and China and *Paraplea* Esaki and China are here elevated to the generic level. *Plea uilionis* Drake and Chapman also belongs to the genus *Paraplea*. *Plea striola* (Fieber) and apparently all of the other American pleiids belong to the genus *Neoplea*, though the very large *Plea borellii* Kirkaldy from Argentina and Brasil needs further study.

Family Gerridae Leach 1815

This family is represented in the collection by four species, including one species of the genus *Gerris* described herein as new to science. *Eobates vittatus* (Shaw): 8 specimens, Hicaco Creek, Altigracia, Prov. Trujillo, Dec. 27. *Trepobates taylori* (Kirkaldy), many specimens, Bajos de Haina. *Rheumatobates bergrothi* (Meinert): Several specimens, Bajos de Haina, Dec. 29. *Limnogonus guerini* Lethierry et Severin: Many specimens; Valle Nuevo, Prov. la Vega, altitude 2,200 meters, Dec. 28; and Bajos de Haina, Dec. 29, in permanent pool.

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Gerris dominicus n. sp.

Apterous male: Dark brownish black with sides of and a large U-shaped mark at base of head, upper half of pleura, entire metanotum and a median longitudinal stripe on anterior two-thirds of pronotum yellowish brown; body beneath stramineous with a silvery lustre; rostrum yellowish with terminal segment black, extending a little beyond prosternum. Width of head across eyes shorter than the length of first antennal segment (100:90). Antennae blackish fuscous, measurements—I, 90; II, 72; III, 72; IV, 80. Anterior legs blackish fuscous, the femora brownish testaceous, becoming darker apically; femora strongly curved, slightly flattened and strongly concave beneath on basal three-fifths, with a prominent patch clothed with short brownish hairs at apical fourth, there slightly enlarged but without a distinct prominence; tarsi composed of two segments of nearly equal length.

Pronotum divided into two distinct lobes; anterior lobe only slightly raised, impressed on disc, with darkened area subquadrate; posterior lobe or projection triangular or perhaps more shieldlike as the sides are a little convexly rounded, basal width a little greater than median length (78:70), with the hind part of mesonotum beyond apex of hind pronotal projection a little longer than median length of hind pronotal lobe (90:70). Omphalium not especially prominent, abdomen slowly tapering posteriorly, with a median longitudinal pale stripe on last five tergites, the connexiva not extended posteriorly at apex; last segment of venter nearly twice as long as preceding segment, rather deeply, broadly roundly notched behind. First four segments of venter with a median, longitudinal ridge. First genital segment beneath practically as long as last ventrite, cylindrical in shape.

Winged male: Hemelytra longer than abdomen, provided with some grayish and golden pubescence. Pronotum with anterior part much shorter than hind projection (17:37). Other structures as in apterous form. Female unknown.

Length, 6.75 mm. (apterous male) and 8.00 (macropterous male); width, 1.55–1.75 mm.

Type (macropterous male) and 1 *paratype* (apterous male), Valle del Rio, Prov. La Vega, Dec. 28, 1955.

This waterstrider belongs to the group of Neotropical species, such as *kahli* D. & H., *G. beieri* D. & H. and *G. carmelus* D. & H., which have the posterior lobe of pronotum more or less strongly extended posteriorly (not covering entire mesonotum) and the fore femora strongly bowed (concave beneath) from the base and

with a more or less large tubercle or prominence at the apex of the ventral concavity. The prominence is generally provided with a dense vestiture of very short, stiff, brown hairs. *G. dominicus*, n. sp. differs from the above mentioned species and also from *G. carneiventris* Champion by the length of the bowed part of the anterior femora and the shape and size of posterior process of pronotum as described in the description.

Family Mesoveliidae Douglas and Scott 1867

The common and very widely dispersed *Mesovelia mulsanti* Buchanan-White was taken at Valle Nuevo, Prov. Vega, Dec. 28, elevation 2,200 meters. This species is widely distributed in all of the Americas.

Family Veliidae Dohrn 1859

Eight species, including a new formed described below, of this family were netted in the Dominican Republic. *Velia brachialis* Burmeister: One specimen, Bajos de Haina, in permanent pool, Dec. 29. *Microvelia pulchella* Westwood: Common species, Valle Nuevo, altitude 2,200 meters, Dec. 28. *Microvelia albonotata* Champion; 2 female specimens, Bajos de Haina, Dec. 29. *Microvelia hinci* Drake: 2 specimens, Bajos de Haina, Dec. 29; and 6 kilometers west of Ciudad Trujillo, Dec. 16-20. *Microvelia longipes* Uhler; Numerous specimens, Valle Nuevo, Dec. 28, and Bajos de Haina, Dec. 29, in permanent pool. *Rhagovelia secluda* Drake and Maldonado-Capriles: Several specimens, Valle Nuevo, altitude 2,200 meters, near bank in ripples of running water (recently characterized by the authors from the Dominican Republic). The third antennal segment of the male *secluda* is very strongly compressed, nearly flat, and thus subovate in form, the latter character separates it at once from all described American *Rhagovelia* Mayr, even from species of the Old World too.

Rhagovelia vegana n. sp.

Apterous form: Moderately large, blackish with anterior part of pronotum, uncovered apical part of mesonotum and connexiva (save the dark exterior margin) brownish testaceous; body beneath stramineous with metasternum and first ventrite blackish. Head with a very distinct, median, longitudinal, impressed line and the usual basal impressions; rostrum testaceous with last segment black and shining. Antennae dark with basal third of first segment pale testaceous, segments I and II with the usual long bristly hairs, measurements—I, 70; II, 40; III, 46; IV, 41.

Male: Pronotum black, with approximately the anterior one-fifth slightly brownish testaceous, with median length shorter than width of darkened part (50:80), slowly broadly rounded behind; mesonotum moderately tumid, broadly blunt behind, with uncovered posterior part about two-fifths as long as median length of pronotum. Abdomen tapering posteriorly, with considerably bluish pruinose bordering sutures, sparsely provided with dark erect hairs (slightly more numerous than on pronotum); connexiva tapering posteriorly, not produced behind, terminating at apex in a narrow acute angle. All acetabula, coxae and trochanters pale testaceous. Anterior femora mostly testaceous, becoming darker apically; tibiae widened and flattened distally and medially longitudinally hollowed out beneath. Middle legs very long, with femora slightly longer than tibiae (140:110); tarsi II and III subequal in length (60:58). Hind femora only feebly incrassate, with inferior surface testaceous, armed beneath with a moderately long bent spine at basal two-fifths, thence followed by a row of seven or eight shorter spines to apex which decrease slowly in size apically and then which is preceded to base by a row of eight or nine very short, blunt, brown teeth; trochanters with one or two very short teeth, without spines; tibiae straight, unarmed, much longer than femora (112:150), tarsi II and III subequal in length (58:60).

Female: Abdomen tapering posteriorly but wider at apex than in male; connexiva wider than and more slowly narrowed apical, with apex fairly wide and truncate, suberect to penultimate segment, then strongly reflexed and resting or nearly resting on tergites (last two segments) but with outer margins considerably separated. Head and thorax as in male. Antennal measurements—I, 78; II, 42; III, 45; IV, 45. Other characters very similar to male. Legs unarmed.

Length, 3.25 mm.; width, 1.60 mm.

Type (male) and *allotype* (female), Valle Nuevo, Prov. La Vega, Dec. 28, 1955. *Paratype*: 1 male (slightly teneral), same labels as type. Macropterous form unknown.

This insect belongs to the group of *Rhagozelia* Mayr that have the pronotum (in both sexes) extended posteriorly so as to cover around half of the mesonotum in the apterous form. *R. vegana* may be separated from other similarly colored species in the apterous condition by feebly enlarged hind femora and the more wider and more broadly roundly produced posterior part of pronotum. The third antennal segment is not strongly compressed and flattened in the male as in *R. secluda* from the Dominican Republic.